

18. (Three Times Amended) An apparatus for storing data comprising:

a plurality of storage units for storing data in a plurality of data groups and error correcting data corresponding to each of the data groups, wherein a fault can occur in the storage units; and [being susceptible to a fault occurring in any of the storage units, the fault affecting data stored in any of the storage units in which the fault has occurred, the affected data belonging to at least one of the data groups; and]

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a controller for performing processing of reconstructing [the affected] data stored in any of the storage units in which a fault has occurred based on all other data belonging to [each of the at least one] any of the data groups to which the [affected] data to be reconstructed belongs and error correcting data corresponding to [each of the at least one] any of the data groups to which the [affected] data to be reconstructed belongs;

wherein the controller determines a preference to be given to the processing of reconstructing data.

4 21. (Twice Amended) An apparatus for storing data connectable to a host unit which issues data read/write requests to the apparatus for storing data, the apparatus for storing data comprising:

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a plurality of storage units for storing data in a plurality of data groups and error correcting data

corresponding to each of the data groups, wherein a fault can occur in the storage units; and [being susceptible to a fault occurring in any of the storage units, the fault affecting data stored in any of the storage units in which the fault has occurred, the affected data belonging to at least one of the data groups; and]

P2 a controller for performing processing of reconstructing [the affected] data stored in any of the storage units in which a fault has occurred based on all other data belonging to [each of the at least one] any of the data groups to which the [affected] data to be reconstructed belongs and error correcting data corresponding to [each of the at least one] any of the data groups to which the [affected] data to be reconstructed belongs, and processing of data read/write requests from the host unit;

wherein the controller determines whether to give preference to the processing of reconstructing data or to the processing of data read/write requests, and performs the processing to which preference is given based on a predetermined limit time.

P3 5 24. (Three Times Amended) An apparatus for storing data connectable to a host unit which issues data read/write requests to the apparatus for storing data, the apparatus for storing data comprising:

a plurality of storage units for storing data in a plurality of data groups and error correcting data

corresponding to each of the data groups, wherein a fault can occur in the storage units; and [being susceptible to a fault occurring in any of the storage units, the fault affecting data stored in any of the storage units in which the fault has occurred, the affected data belonging to at least one of the data groups; and]

P3 a controller for performing processing of reconstructing [the affected] data stored in any of the storage units in which a fault has occurred based on all other data belonging to [each of the at least one] any of the data groups to which the [affected] data to be reconstructed belongs and error correcting data corresponding to [each of the at least one] any of the data groups to which the [affected] data to be reconstructed belongs, and processing of data read/write requests from the host unit;

wherein the controller controls an amount of time for the processing of reconstructing data within a unit time based on a predetermined limit time.

P4 26. (Twice Amended) An apparatus for storing data connectable to a host unit which issues data read/write requests to the apparatus for storing data, the apparatus for storing data comprising:

a plurality of storage units for storing data in a plurality of data groups and error correcting data corresponding to each of the data groups, wherein a fault can occur in the storage units; and [being susceptible to a fault

occurring in any of the storage units, the fault affecting data stored in any of the storage units in which the fault has occurred, the affected data belonging to at least one of the data groups; and]

Q4 a controller for performing processing of reconstructing [the affected] data stored in any of the storage units in which a fault has occurred based on all other data belonging to [each of the at least one] any of the data groups to which the [affected] data to be reconstructed belongs and error correcting data corresponding to [each of the at least one] any of the data groups to which the [affected] data to be reconstructed belongs, and processing of data read/write requests from the host unit;

wherein the controller controls an amount of the processing of reconstructing data based on a predetermined limit time.

27. (Three Times Amended) An apparatus for storing data connectable to a host unit which issues data read/write requests to the apparatus for storing data, the apparatus for storing data comprising:

Q5 a plurality of storage units for storing data in a plurality of data groups and error correcting data corresponding to each of the data groups, wherein a fault can occur in the storage units; and [being susceptible to a fault occurring in any of the storage units, the fault affecting data stored in any of the storage units in which the fault has

occurred, the affected data belonging to at least one of the data groups; and]

a controller for performing processing of reconstructing [the affected] data stored in any of the storage units in which a fault has occurred based on all other data belonging to [each of the at least one] any of the data groups to which the [affected] data to be reconstructed belongs and error correcting data corresponding to [each of the at least one] any of the data groups to which the [affected] data to be reconstructed belongs, and processing of data read/write requests from the host unit;

PS wherein the controller determines an amount of the processing of reconstructing data instead of the processing of data read/write requests such that the processing of reconstructing data is completed within a fixed period of time.

§ 28. (Three Times Amended) An apparatus for storing data connectable to a host unit which issues data read/write requests to the apparatus for storing data, the apparatus for storing data comprising:

a plurality of storage units for storing data in a plurality of data groups and error correcting data corresponding to each of the data groups, wherein a fault can occur in the storage units; and [being susceptible to a fault occurring in any of the storage units, the fault affecting data stored in any of the storage units in which the fault has

occurred, the affected data belonging to at least one of the data groups; and]

a controller for performing processing of reconstructing [the affected] data stored in any of the storage units in which a fault has occurred based on all other data belonging to [each of the at least one] any of the data groups to which the [affected] data to be reconstructed belongs and error correcting data corresponding to [each of the at least one] any of the data groups to which the [affected] data to be reconstructed belongs, and processing of data read/write requests from the host unit;

wherein the controller performs the processing of reconstructing data in preference to the processing of data read/write requests such that the processing of reconstructing data is completed within a fixed period of time.

9 28. (Three Times Amended) An apparatus for storing data connectable to a host unit which issues data read/write requests to the apparatus for storing data, the apparatus for storing data comprising:

a plurality of storage units for storing data in a plurality of data groups and error correcting data corresponding to each of the data groups, wherein a fault can occur in the storage units; and [being susceptible to a fault occurring in any of the storage units, the fault affecting data stored in any of the storage units in which the fault has

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occurred, the affected data belonging to at least one of the data groups; and]

DS a controller for performing processing of reconstructing [the affected] data stored in any of the storage units in which a fault has occurred based on all other data belonging to [each of the at least one] any of the data groups to which the [affected] data to be reconstructed belongs and error correcting data corresponding to [each of the at least one] any of the data groups to which the [affected] data to be reconstructed belongs, and processing of data read/write requests from the host unit;

wherein the controller performs the processing of reconstructing data instead of the processing of data read/write requests such that the processing of reconstructing data is completed within a fixed period of time.

10 20. (Three Times Amended) An apparatus for storing data connectable to a host unit which issues data read/write requests to the apparatus for storing data, the apparatus for storing data comprising:

pl6 a plurality of storage units for storing data in a plurality of data groups and error correcting data corresponding to each of the data groups, wherein a fault can occur in the storage units; and [being susceptible to a fault occurring in any of the storage units, the fault affecting data stored in any of the storage units in which the fault has

occurred, the affected data belonging to at least one of the data groups; and]

De a controller for performing processing of reconstructing [the affected] data stored in any of the storage units in which a fault has occurred based on all other data belonging to [each of the at least one] any of the data groups to which the [affected] data to be reconstructed belongs and error correcting data corresponding to [each of the at least one] any of the data groups to which the [affected] data to be reconstructed belongs, and processing of data read/write requests from the host unit;

wherein the controller gives a preference to the processing of data read/write requests and performs the processing of reconstructing data within a remaining time.

(232. (Amended) An apparatus for storing data connectable to a host unit which issues data read/write requests to the apparatus for storing data, the apparatus for storing data comprising:

D7 a plurality of storage units for storing data in a plurality of data groups and error correcting data corresponding to each of the data groups, wherein a fault can occur in the storage units; and [being susceptible to a fault occurring in any of the storage units, the fault affecting data stored in any of the storage units in which the fault has occurred, the affected data belonging to at least one of the data groups; and]

a controller for performing processing of reconstructing [the affected] data stored in any of the storage units in which a fault has occurred based on all other data belonging to [each of the at least one] any of the data groups to which the [affected] data to be reconstructed belongs and error correcting data corresponding to [each of the at least one] any of the data groups to which the [affected] data to be reconstructed belongs, and processing of data read/write requests from the host unit;

wherein the controller determines an amount of the processing of reconstructing data instead of the processing of data read/write requests based on a predetermined time.

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23. (Amended) An apparatus for storing data comprising:

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a plurality of storage units; and

a controller connected to the storage units;

wherein the storage units store data in a plurality of data groups and error correcting data corresponding to each of the data groups;

wherein [the storage units are susceptible to] a fault [occurring] can occur in [any of] the storage units;[,]
and [the fault affecting data stored in any of the storage units in which the fault has occurred, the affected data belonging to at least one of the data groups; and]

wherein the controller performs processing of reconstructing [the affected] data stored in any of the storage units in which a fault has occurred based on all other

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data belonging to [each of the at least one] any of the data groups to which the data to be reconstructed belongs and error correcting data corresponding to [each of the at least one] any of the data groups to which the [affected] data to be reconstructed belongs, and determines a preference to be given to the processing of reconstructing data.

1638. (Amended) An apparatus for storing data connectable to a host unit which issues data read/write requests to the apparatus for storing data, the apparatus for storing data comprising:

a plurality of storage units; and

a controller connected to the storage units;

wherein the storage units store data in a plurality of data groups and error correcting data corresponding to each of the data groups;

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wherein [the storage units are susceptible to] a fault [occurring] can occur in [any of] the storage units;[,] and [the fault affecting data stored in any of the storage units in which the fault has occurred, the affected data belonging to at least one of the data groups; and]

wherein the controller performs processing of reconstructing [the affected] data stored in any of the storage units in which a fault has occurred based on all other data belonging to [each of the at least one] any of the data groups to which the data to be reconstructed belongs and error correcting data corresponding to [each of the at least one]

any of the data groups to which the [affected] data to be reconstructed belongs, performs processing of data read/write requests from the host unit, determines whether to give preference to the processing of reconstructing data or to the processing of data read/write requests, and performs the processing to which preference is given based on a predetermined limit time.

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~~31~~. (Amended) An apparatus for storing data connectable to a host unit which issues data read/write requests to the apparatus for storing data, the apparatus for storing data comprising:

a plurality of storage units; and

a controller connected to the storage units;

wherein the storage units store data in a plurality of data groups and error correcting data corresponding to each of the data groups;

wherein [the storage units are susceptible to] a fault [occurring] can occur in [any of] the storage units;[,]
and [the fault affecting data stored in any of the storage units in which the fault has occurred, the affected data belonging to at least one of the data groups; and]

wherein the controller performs processing of reconstructing [the affected] data stored in any of the storage units in which a fault has occurred based on all other data belonging to [each of the at least one] any of the data groups to which the data to be reconstructed belongs and error

correcting data corresponding to [each of the at least one] any of the data groups to which the [affected] data to be reconstructed belongs, performs processing of data read/write requests from the host unit, and controls an amount of time for the processing of reconstructing data within a unit time based on a predetermined limit time.

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~~38~~. (Amended) An apparatus for storing data connectable to a host unit which issues data read/write requests to the apparatus for storing data, the apparatus for storing data comprising:

a plurality of storage units; and

a controller connected to the storage units;

wherein the storage units store data in a plurality of data groups and error correcting data corresponding to each of the data groups;

wherein [the storage units are susceptible to] a fault [occurring] can occur in [any of] the storage units;[,]
and [the fault affecting data stored in any of the storage units in which the fault has occurred, the affected data belonging to at least one of the data groups; and]

wherein the controller performs processing of reconstructing [the affected] data stored in any of the storage units in which a fault has occurred based on all other data belonging to [each of the at least one] any of the data groups to which the data to be reconstructed belongs and error correcting data corresponding to [each of the at least one]

any of the data groups to which the [affected] data to be reconstructed belongs, performs processing of data read/write requests from the host unit, and controls an amount of the processing of reconstructing data based on a predetermined limit time.

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~~25~~. (Amended) An apparatus for storing data connectable to a host unit which issues data read/write requests to the apparatus for storing data, the apparatus for storing data comprising:

a plurality of storage units; and

a controller connected to the storage units;

wherein the storage units store data in a plurality of data groups and error correcting data corresponding to each of the data groups;

wherein [the storage units are susceptible to] a fault [occurring] can occur in [any of] the storage units;[,]
and [the fault affecting data stored in any of the storage units in which the fault has occurred, the affected data belonging to at least one of the data groups; and]

wherein the controller performs processing of reconstructing [the affected] data stored in any of the storage units in which a fault has occurred based on all other data belonging to [each of the at least one] any of the data groups to which the data to be reconstructed belongs and error correcting data corresponding to [each of the at least one] any of the data groups to which the [affected] data to be

reconstructed belongs, performs processing of data read/write requests from the host unit, and determines an amount of the processing of reconstructing data instead of the processing of data read/write requests such that the processing of reconstructing data is completed within a fixed period of time.

20 ~~40~~. (Amended) An apparatus for storing data connectable to a host unit which issues data read/write requests to the apparatus for storing data, the apparatus for storing data comprising:

a plurality of storage units; and

a controller connected to the storage units;

wherein the storage units stores a plurality of data groups and error correcting data corresponding to each of the data groups;

wherein [the storage units are susceptible to] a fault [occurring] can occur in [any of] the storage units;[,]
and [the fault affecting data stored in any of the storage units in which the fault has occurred, the affected data belonging to at least one of the data groups; and]

wherein the controller performs processing of reconstructing [the affected] data stored in any of the storage units in which a fault has occurred based on all other data belonging to [each of the at least one] any of the data groups to which the data to be reconstructed belongs and error correcting data corresponding to [each of the at least one]

any of the data groups to which the [affected] data to be reconstructed belongs, performs processing of data read/write requests from host unit, and performs the processing of reconstructing data in preference to the processing of data read/write requests such that the processing of reconstructing data is completed within a fixed period of time.

21. (Amended) An apparatus for storing data connectable to a host unit which issues data read/write requests to the apparatus for storing data, the apparatus for storing data comprising:

PS a plurality of storage units; and

a controller connected to the storage units;

wherein the storage units store data in a plurality of data groups and error correcting data corresponding to each of the data groups;

wherein [the storage units are susceptible to] a fault [occurring] can occur in [any of] the storage units;[,] and [the fault affecting data stored in any of the storage units in which the fault has occurred, the affected data belonging to at least one of the data groups; and]

wherein the controller performs processing of reconstructing [the affected] data stored in any of the storage units in which a fault has occurred based on all other data belonging to [each of the at least one] any of the data groups to which the data to be reconstructed belongs and error correcting data corresponding to [each of the at least one]

any of the data groups to which the [affected] data to be reconstructed belongs, performs processing of data read/write requests from the host unit, and performs the processing of reconstructing data instead of the processing of data read/write requests such that the processing of reconstructing data is completed within a fixed period of time.

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~~42~~. (Amended) An apparatus for storing data connectable to a host unit which issues data read/write requests to the apparatus for storing data, the apparatus for storing data comprising:

a plurality of storage units; and

a controller connected to the storage units;

wherein the storage units store data in a plurality of data groups and error correcting data corresponding to each of the data groups;

wherein [the storage units are susceptible to] a fault [occurring] can occur in [any of] the storage units;[,] and [the fault affecting data stored in any of the storage units in which the fault has occurred, the affected data belonging to at least one of the data groups; and]

wherein the controller performs processing of reconstructing [the affected] data stored in any of the storage units in which a fault has occurred based on all other data belonging to [each of the at least one] any of the data groups to which the data to be reconstructed belongs and error correcting data corresponding to [each of the at least one]

D8 any of the data groups to which the [affected] data to be reconstructed belongs, performs processing of data read/write requests from the host unit, and gives a preference to the processing of data read/write requests and performs the processing of reconstructing data within a remaining time.

2444. (Amended) An apparatus for storing data connectable to a host unit which issues data read/write requests to the apparatus for storing data, the apparatus for storing data comprising:

a plurality of storage units; and

a controller connected to the storage units;

wherein the storage units store data in a plurality of data groups and error correcting data corresponding to each of the data groups;

D9 wherein [the storage units are susceptible to] a fault [occurring] can occur in [any of] the storage units;[,] and [the fault affecting data stored in any of the storage units in which the fault has occurred, the affected data belonging to at least one of the data groups; and]

wherein the controller performs processing of reconstructing [the affected] data stored in any of the storage units in which a fault has occurred based on all other data belonging to [each of the at least one] any of the data groups to which the data to be reconstructed belongs and error correcting data corresponding to [each of the at least one] any of the data groups to which the [affected] data to be